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Indian Standard
SPECIFICATION FOR
POULTRY EGG FERTILITY TESTER

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MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 1

January 1972

Indian Standard

SPECIFICATION FOR POULTRY EGG FERTILITY TESTER

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AMENDMENT NO. 1 JANUARY 1973
TO
IS : 6228 - 1971 SPECIFICATION FOR POULTRY EGG FERTILITY TESTER

Corrigendum

(*Page* 4, *clause* **5.1**, *line* 6) — Substitute ' narrow ' *for* ' norrow '.

(AFDC 17)

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Indian Standard
SPECIFICATION FOR POULTRY EGG FERTILITY TESTER

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 6 August 1971, after the draft finalized by the Animal Housing and Equipment Sectional Committee had been approved by the Agricultural and Food Products Division Council.

0.2 Fertile and sound eggs ensure the best hatches and proper utilization of incubation space. Fertility tester shall test the fertility of the eggs during incubation.

0.3 As there are various types and sizes of egg fertility testers in vogue and their performance differs in most of the cases, this standard has been prepared to have an effective quality control and help achieve uniform performance. This standard would also help those who are engaged in the study of embryonic development of eggs at universities, colleges and laboratories.

0.4 This standard contains clause **6.2** which calls for an agreement between the purchaser and the vendor.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes the requirements and performance test for poultry egg fertility testers.

2. TERMINOLOGY

2.0 For the purpose of this standard, the following definition shall apply.

2.1 Fertility Tester — An equipment used for testing fertility of poultry eggs.

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*Rules for rounding off numerical values (*revised*).

3. SOURCE OF SUPPLY

3.1 The fertility tester shall be operated at a rated voltage of 230 to 240 V ac/dc single phase.

3.1.1 This may also be operated using dry cells with an output of 6 volts.

4. MATERIAL

4.1 The body of the fertility tester shall be made of 0·63 mm aluminium sheet and handle shall be of seasoned teak wood or any other suitable hardwood.

4.2 All materials used in the construction shall be of such quality and type that they shall withstand the effects of changing weather conditions, excessive dampness, corrosive fumes or any other deleterious influences to which they are exposed under the conditions of use.

5. REQUIREMENTS

5.1 Description — The fertility tester shall consist of two parts, namely, a transformer unit and a projector unit. The transformer should be fitted with lead and three-pin plug to plug into electric supply point at one end and with a two-pin outlet to connect projector at the other end. The projector should consist of aluminium casing. A white-light reflector shall be mounted to reflect a norrow, high powered beam of light from the lamp. A convenient handle with a long flexible lead with two-pin plug is attached to the projector.

5.2 The transformer with an input of 230 V ac/dc and with an output of 6 volts conforming to IS : 591-1964* shall be used.

5.3 A 6-volt pre-focused lamp conforming to IS : 2261-1963† or any other suitable bulb shall be provided.

5.4 A flexible lead sufficiently long shall be provided.

5.5 A rubber ring shall be provided at touching end of the fertility tester which will avoid any chance of damage to the eggs.

5.5.1 The rubber ring shall have the following dimensions:

Internal diameter, *Min*	20 mm
Thickness, *Min*	3 mm
Height, *Min*	15 mm

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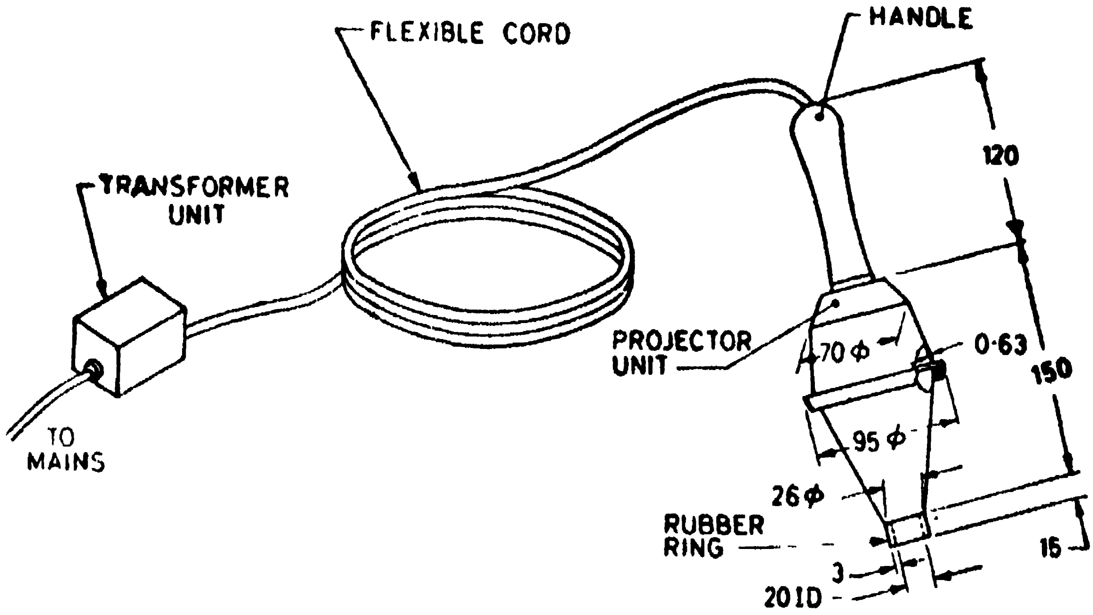
*Specification for mains transformer for electric equipment (*revised*).

†Specification for lamps for flash lights.

5.6 A typical drawing of a fertility tester is given in Fig. 1.



All dimensions in millimetres.

Fig. 1 Poultry Egg Fertility Tester

6. MARKING AND PACKING

6.1 Marking — Each fertility tester shall be marked legibly and indelibly with the following particulars:

a) Manufacturer's name or trade-mark,
b) Manufacturer's model or type reference,
c) Rated input in watts,
d) Nature of supply, and
e) Year of manufacture.

6.1.1 Each fertility tester may also be marked with the ISI Certification Mark.

Note — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act, and the Rules and Regulations made thereunder. Presence of this mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard, under a well-defined system of inspection, testing and quality control during production. This system, which is devised and surpervised by ISI and operated by the producer, has the further safeguard that the products as actually marketed are continuously checked by ISI for conformity to the standard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

6.2 Packing — The egg fertility testers shall be packed as agreed to between the purchaser and the vendor.

7. SAMPLING

7.1 Unless otherwise agreed to between the purchaser and the supplier, the sampling plan and criteria for conformity shall be as given in Appendix A.

8. TEST

8.1 Heating Test — The fertility tester shall not get heated when tested after six hours of test operation.

APPENDIX A

(*Clause* 7.1)

SAMPLING OF EGG FERTILITY TESTER

A-1. SCALE OF SAMPLING

A-1.1 Lot — All fertility testers in a consignment belonging to the same batch of manufacture shall constitute a lot. If the consignment is declared to consist of different batches of manufacture, the fertility tester belonging to the same batch shall be grouped together and each such group shall constitute a separate lot.

A-1.2 Fertility tester shall be tested from each lot for ascertaining their conformity to the requirement of this specification.

A-1.3 The number of fertility testers to be selected for testing from a lot shall depend on the size of the lot and shall be in accordance with col 1 and 2 of Table 1.

A-2. METHOD OF SELECTION OF FERTILITY TESTERS

A-2.1 Fertility testers to be selected from the lot (*see* **A-1.3**) shall be chosen at random and in order to ensure the randomness of selection, a random number table shall be used. In case random number table is not available, the following procedure shall be followed:

> Starting from any fertility tester, the fertility tester shall be counted as 1, 2, 3,......, etc, up to r and so on in one order, where r is equal to the integral part of the value N/n, N being the total number of fertility testers in the lot and n being the number of fertility testers to be chosen

(*see* Table 1). Every *r*th fertility tester thus counted shall be separated until the requisite number of fertility testers is obtained from the lot to constitute a sample for test.

TABLE 1 SCALE OF SAMPLING AND PERMISSIBLE NUMBER OF DEFECTIVES

(*Clause* A-1.3)

NUMBER OF FERTILITY TESTER IN THE LOT (N)	VISUAL AND DIMENSIONAL TESTS		TESTS OTHER THAN VISUAL AND DIMENSIONAL	
	Sample Size (n)	Permissible Number of Defectives	Sub-sample Size	Permissible Number of Defectives
(1)	(2)	(3)	(4)	(5)
Up to 25	5	0	2	0
26 to 100	13	1	3	0
101 „ 500	32	3	5	0
501 „ 1 000	50	5	8	1
1 001 and above	80	7	13	1

A-3. CRITERIA FOR CONFORMITY

A-3.1 Visual and Dimensional Characteristics — All the fertility testers drawn as under col 2 of Table 1 shall be first inspected, along with their components for visual and dimensional characteristics. A fertility tester shall be considered as defective if the fertility tester or any of its components fails to meet the requirements for the characteristics under consideration. If the number of defective fertility testers is less than or equal to the corresponding permissible number of defectives given in col 3 of Table 1, the lot shall be declared to have satisfied the requirements for these characteristics. If, however, the number of defective fertility testers exceed the permissible number, the lot shall be deemed as not conforming to the requirements for these characteristics.

A-3.2 Tests Other Than Visual and Dimensional Characteristics — The lot having been found satisfactory for visual and dimensional characteristics (*see* **A-3.1**) shall be finally tested for tests other than visual and dimensional requirements prescribed under **8**. For this a number of fertility testers in accordance with col 4 of Table 1 shall be drawn at random from those already tested for visual and dimensional characteristics (*see* **A-3.1**).

A-3.2.1 The lot shall be considered to have satisfied the requirements for tests other than visual and dimensional if the number of defective fertility testers is less than or equal to the corresponding number given in col 5 of Table 1.

A-3.3 A lot shall be declared as conforming to the specification, if it satisfies the requirements of the visual and dimensional characteristics (*see* **A-3.1**) and the test prescribed under **8.**

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INDIAN STANDARDS INSTITUTION
Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 1

Telephone: 27 01 31 (20 lines) **Telegrams: Manaksanstha**

Branch Offices:

		Telephone
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F Block, Unity Bldg, Narasimharaja Square	Bangalore 2	2 76 49
534 Sardar Vallabhbhai Patel Road	Bombay 7	35 69 44
5 Chowringhee Approach	Calcutta 13	23-08 02
5-9-201/2-A (First Floor), Chirag Ali Lane	Hyderabad 1	5 34 35
117/418 B Sarvodaya Nagar	Kanpur 5	82 72
54 General Patters Road	Madras 2	8 72 78

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